

Liver Disease in the HIV- infected Patient

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Liver Disease and HIV Infection

- **Spectrum of liver disease**
- **Hepatitis C**
- **Hepatitis B**

Forms of Liver Disease in HIV Infected Persons

- Opportunistic infections

Forms of Liver Disease in HIV Infected Persons

- **Opportunistic infections**
 - Non TB mycobacteria
 - Lymphoma

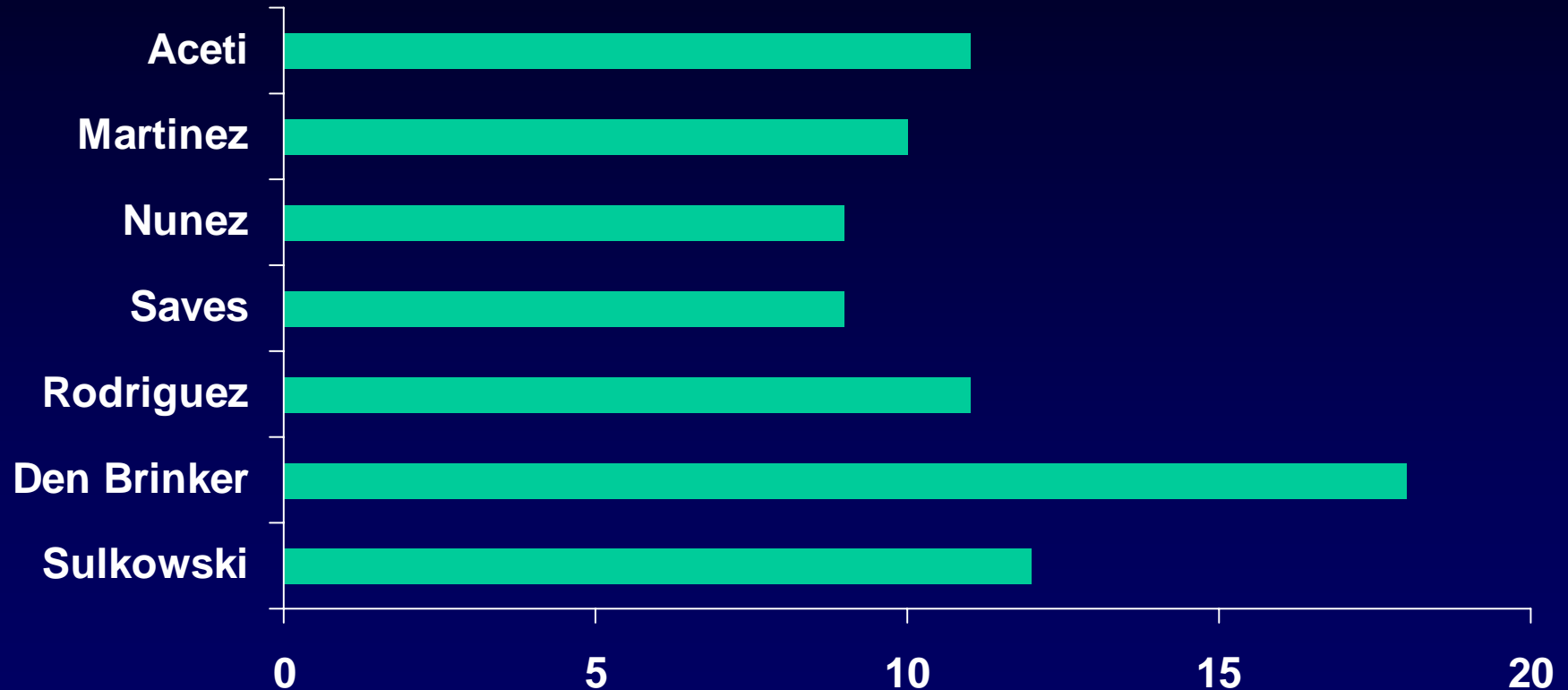
Forms of Liver Disease in HIV Infected Persons

- Opportunistic infections
- HIV related cholangitis
 - Cryptosporidium, MAI, CMV, microsporidia, HIV

Forms of Liver Disease in HIV Infected Persons

- Opportunistic infections
- HIV related cholangitis
- Antiretroviral toxicity

Grade 3-4 ALT/AST Elevations Following New HAART

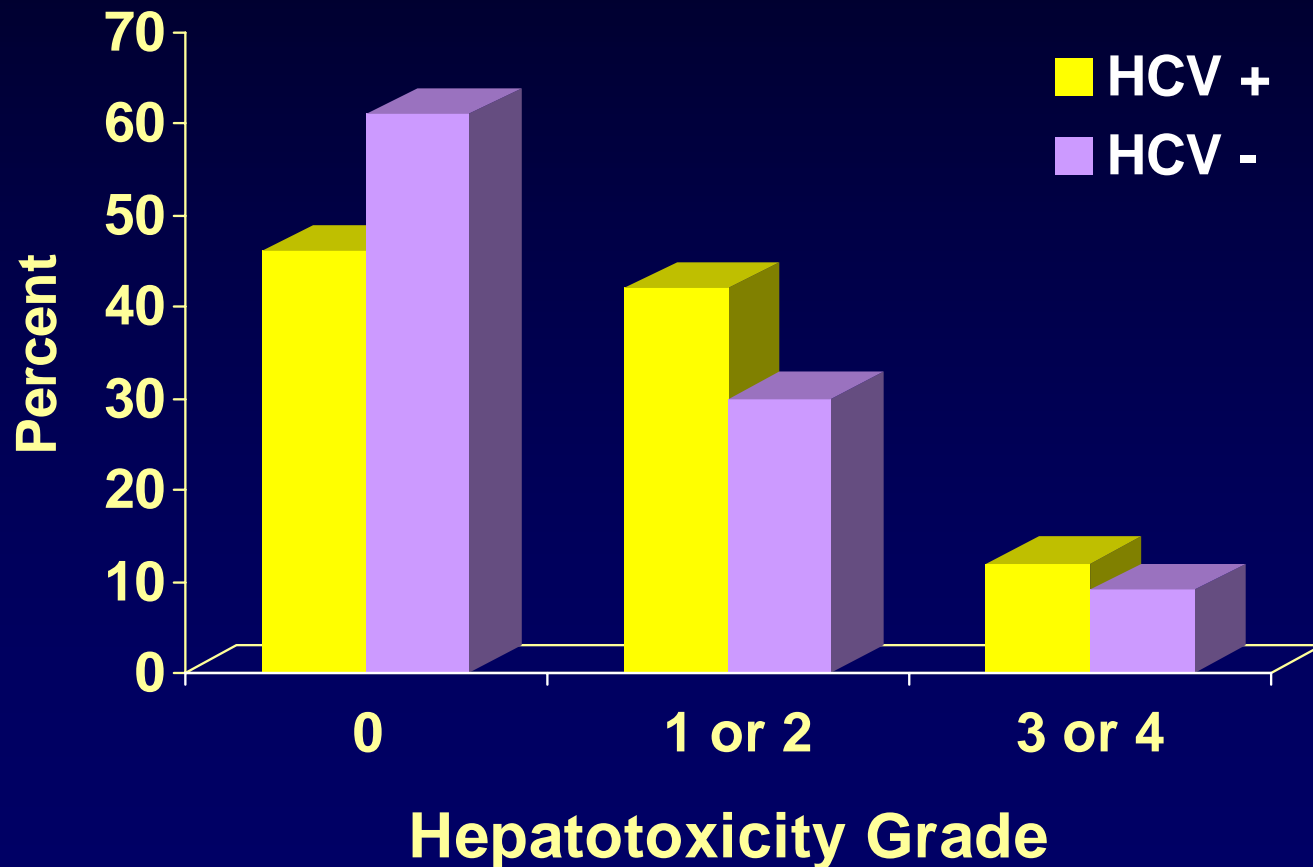


Adapted from Soriano et al
AIDS 2002:813

Incidence (%)

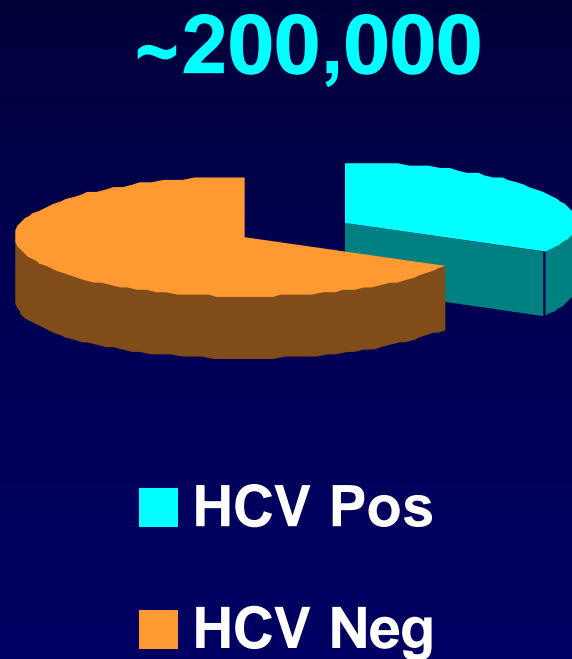
Hepatic Toxicity Grade by HCV Status

Johns Hopkins HIV Cohort

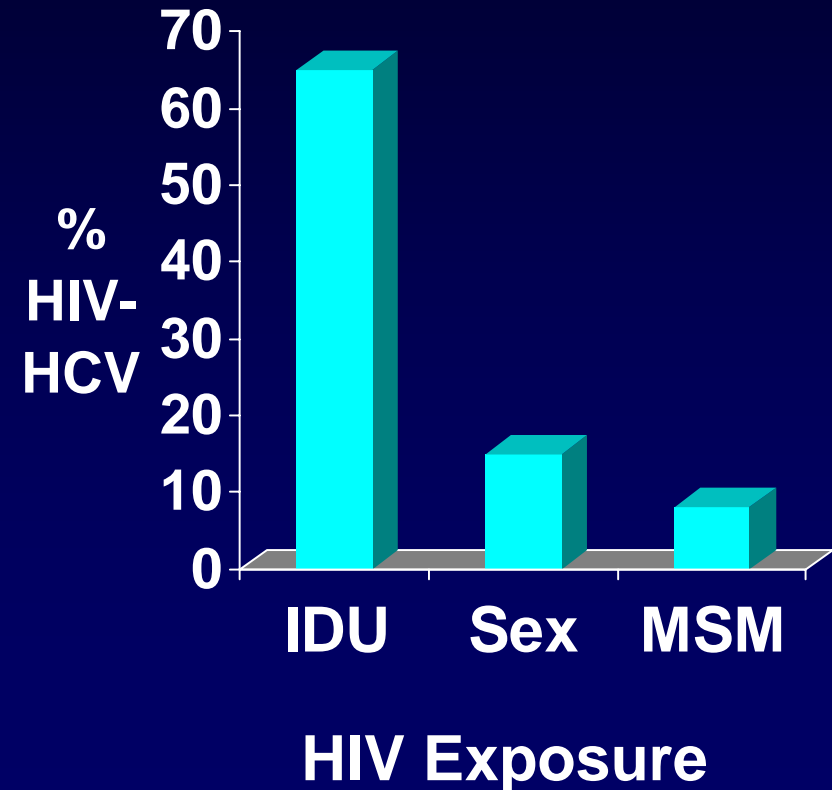


Sulkowski JAMA 2000;283:2526

Hepatitis C in HIV-infected Persons in the USA



Sherman CID 2002

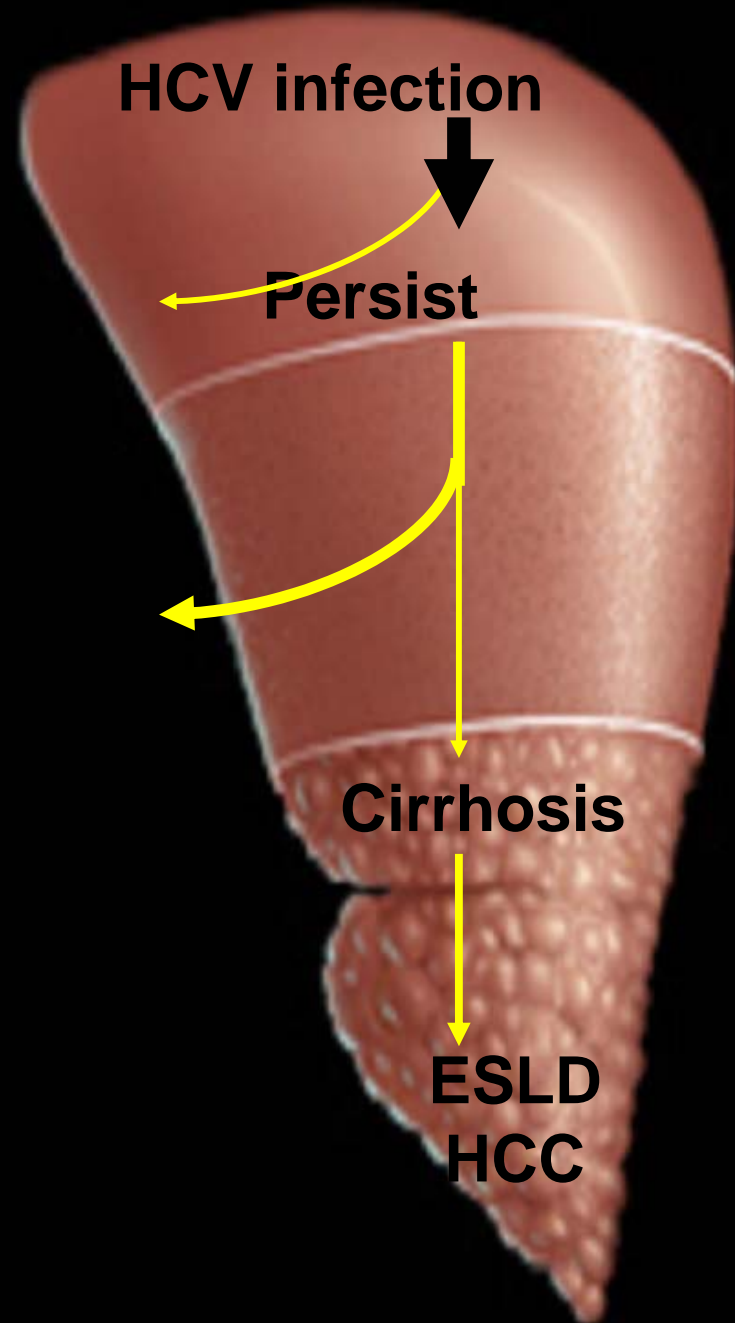


Hepatitis C Natural History

Effect of HIV

Recover

Silent
infection

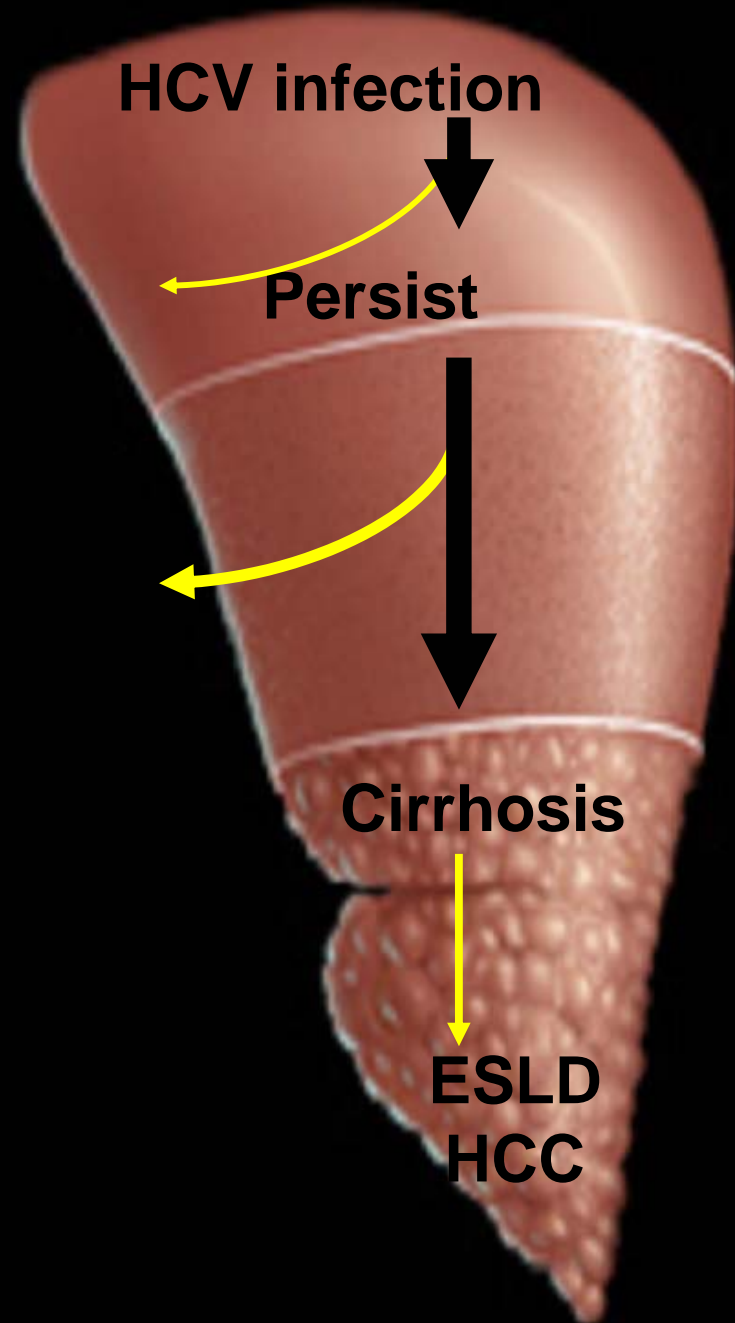


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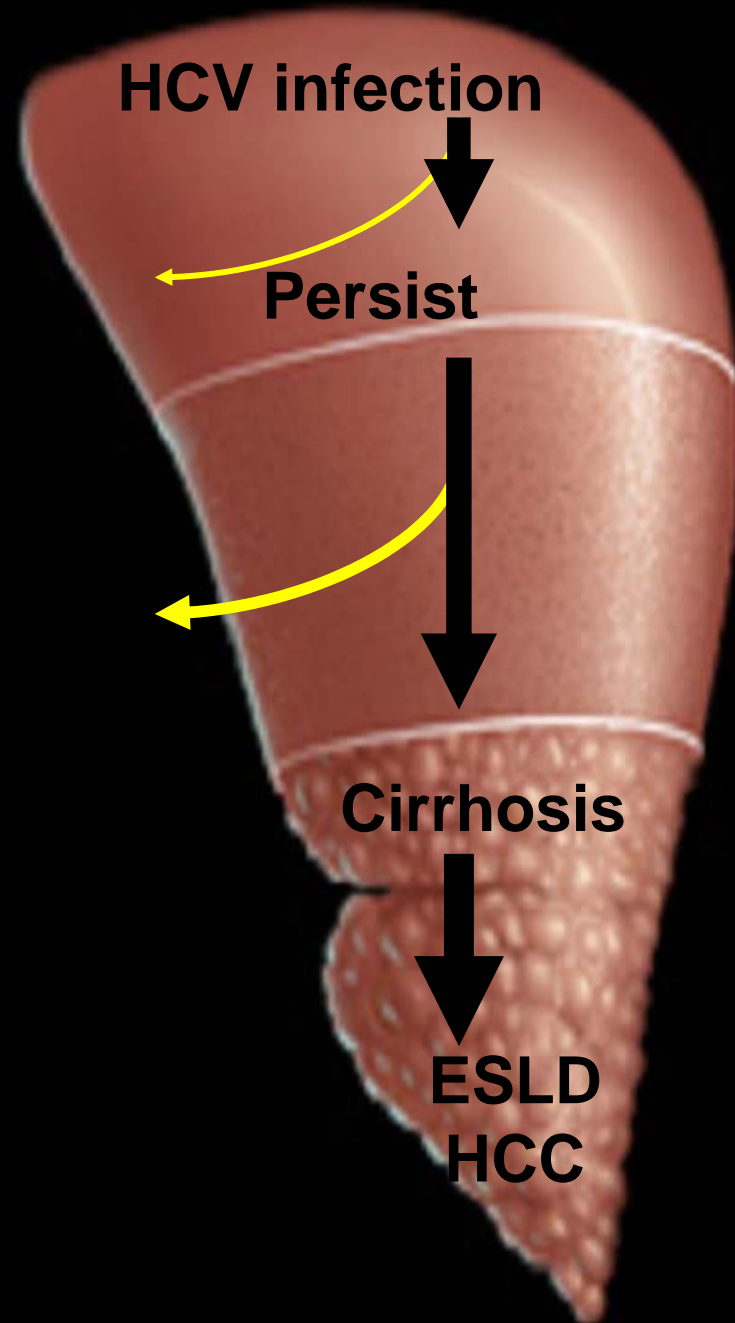


Hepatitis C Natural History

Effect of HIV

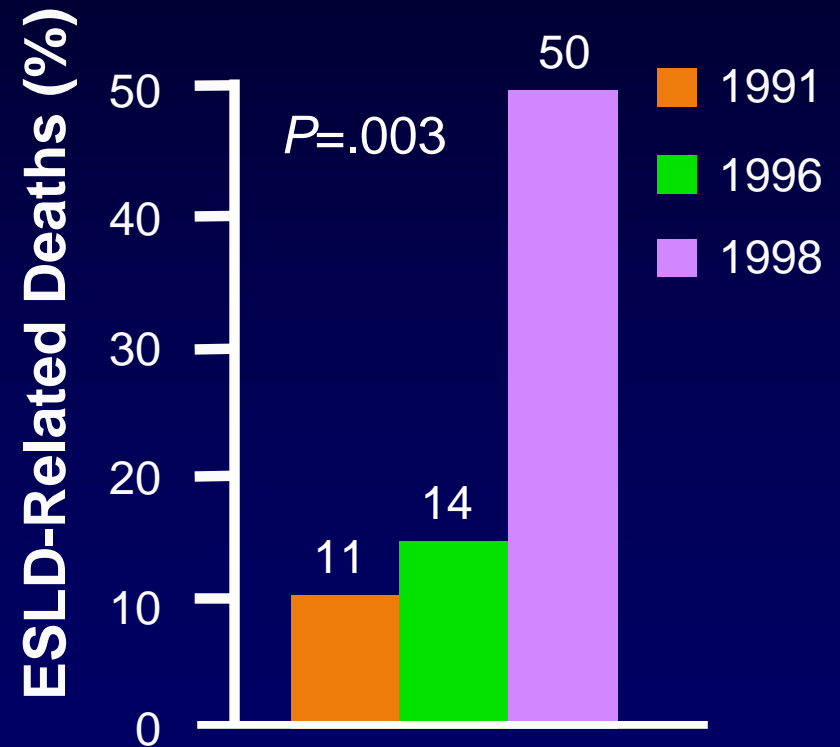
Recover

Silent
infection



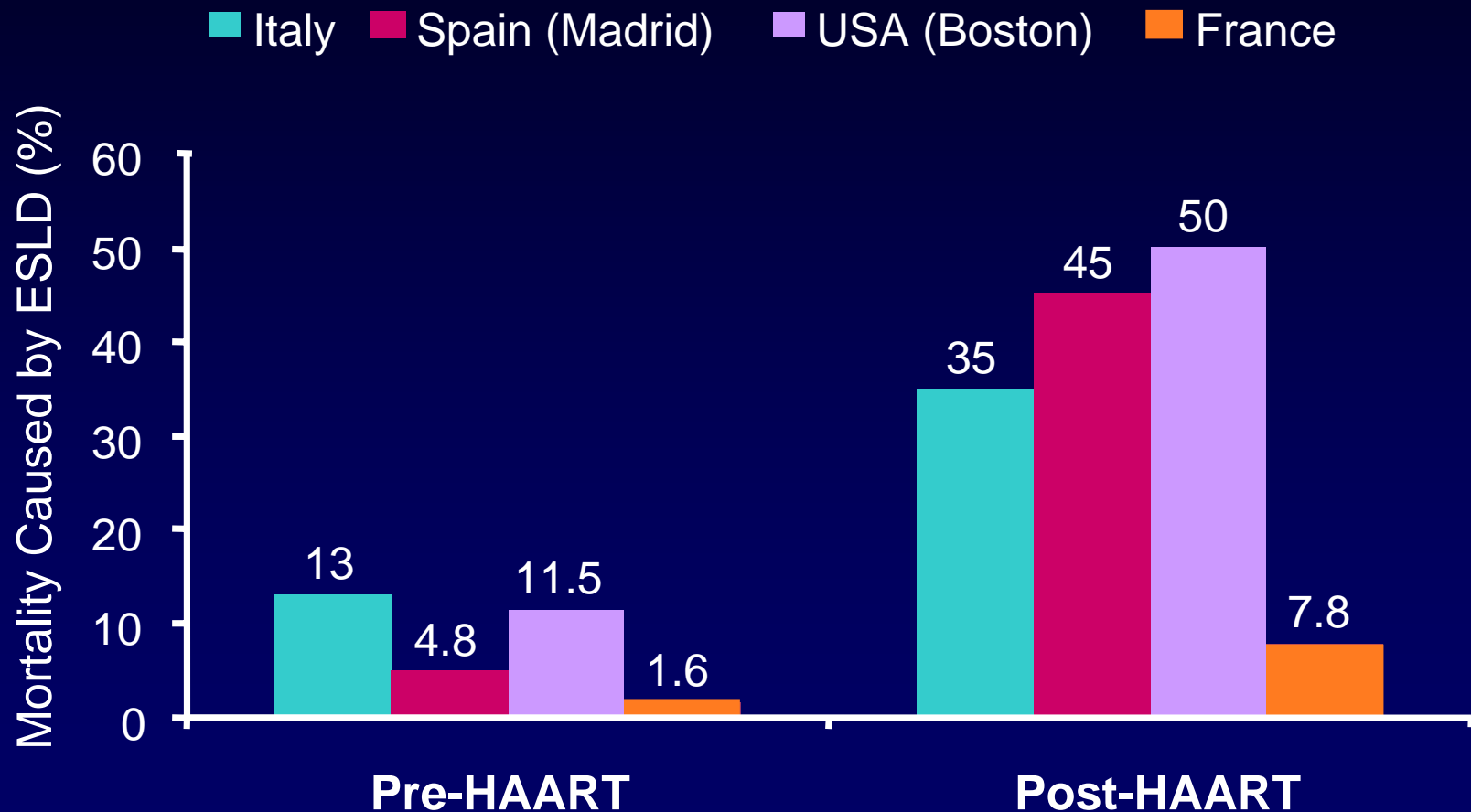
Increasing Mortality From ESLD in Patients With HIV

- 1/3 of 1998 cohort: discontinuing HAART due to hepatotoxicity
- >1/2 who died with ESLD: HIV RNA undetectable or CD4 >200/mm³

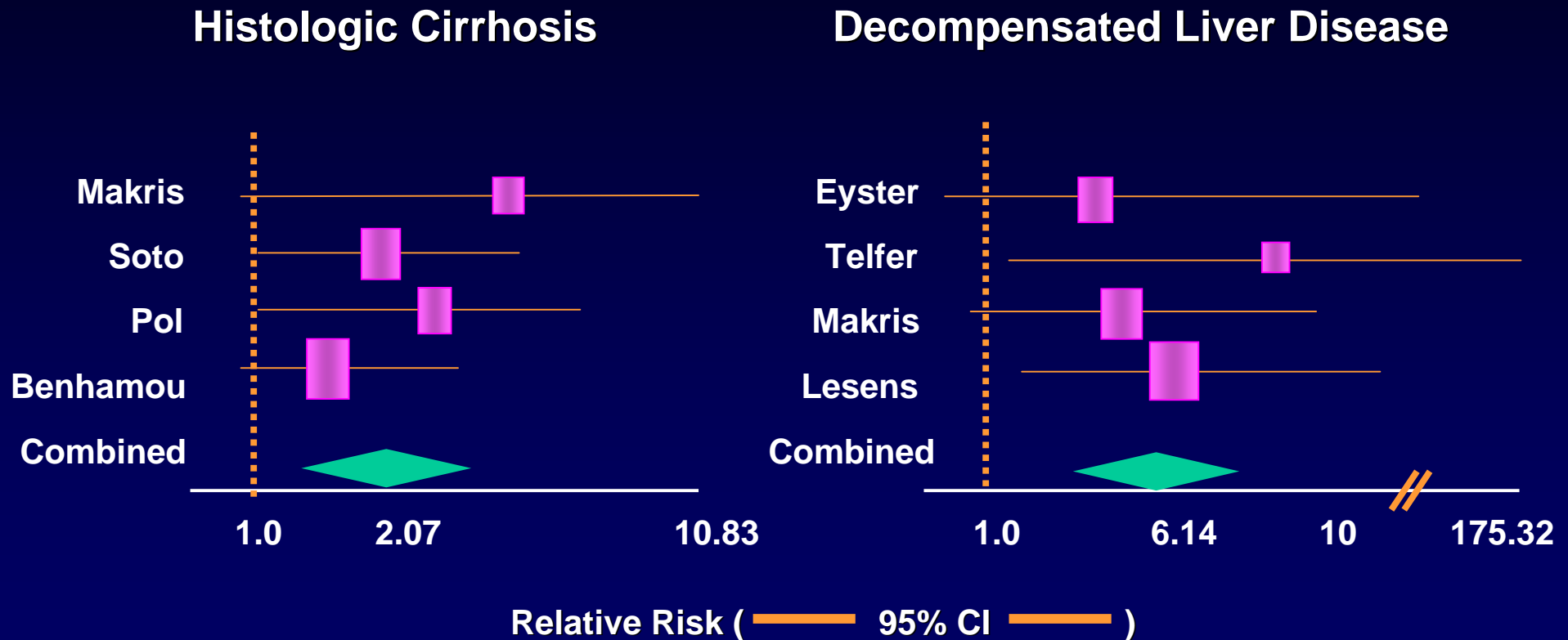


HAART and End Stage Liver Disease (ESLD)

Mortality in HIV-infected Persons



Increased Risk of Cirrhosis and ESLD in HIV-HCV Coinfected Patients

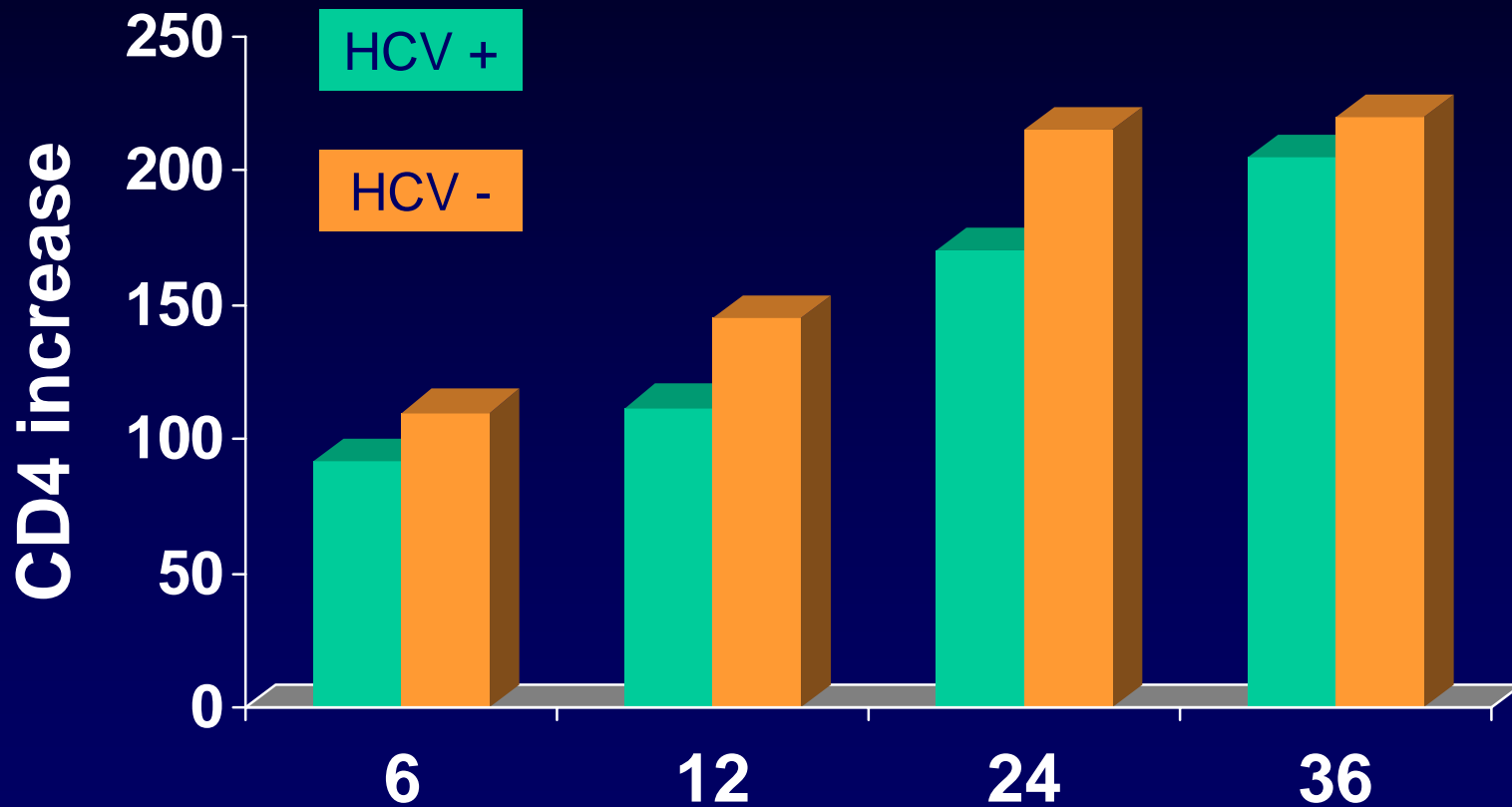


Graham C et al. CID 2001, Makris Br J Haematol 1996, Soto J Hepatol 1997, Pol J Hepatol 1998, Benhamou Hepatology 1999, Eyster JAIDS 1993, Telfer Br J Haematol 1994, Lesens JID 1999.

Outcome of HIV Infection According to HCV: Swiss HIV Cohort Study

- **3111 of 3655, started HAART 6/96 – 5/99**
- **1157 (37%) HCV positive**
- **Progression to death or AIDS: Haz = 1.7**
- **HIV VL <400: 1068 HCV neg and 528 HCV pos, Haz = 3.5**
- **CD4+ lymphocyte response**

Suppressed CD4+ Lymphocyte Responses in HCV-HIV Coinfected Persons

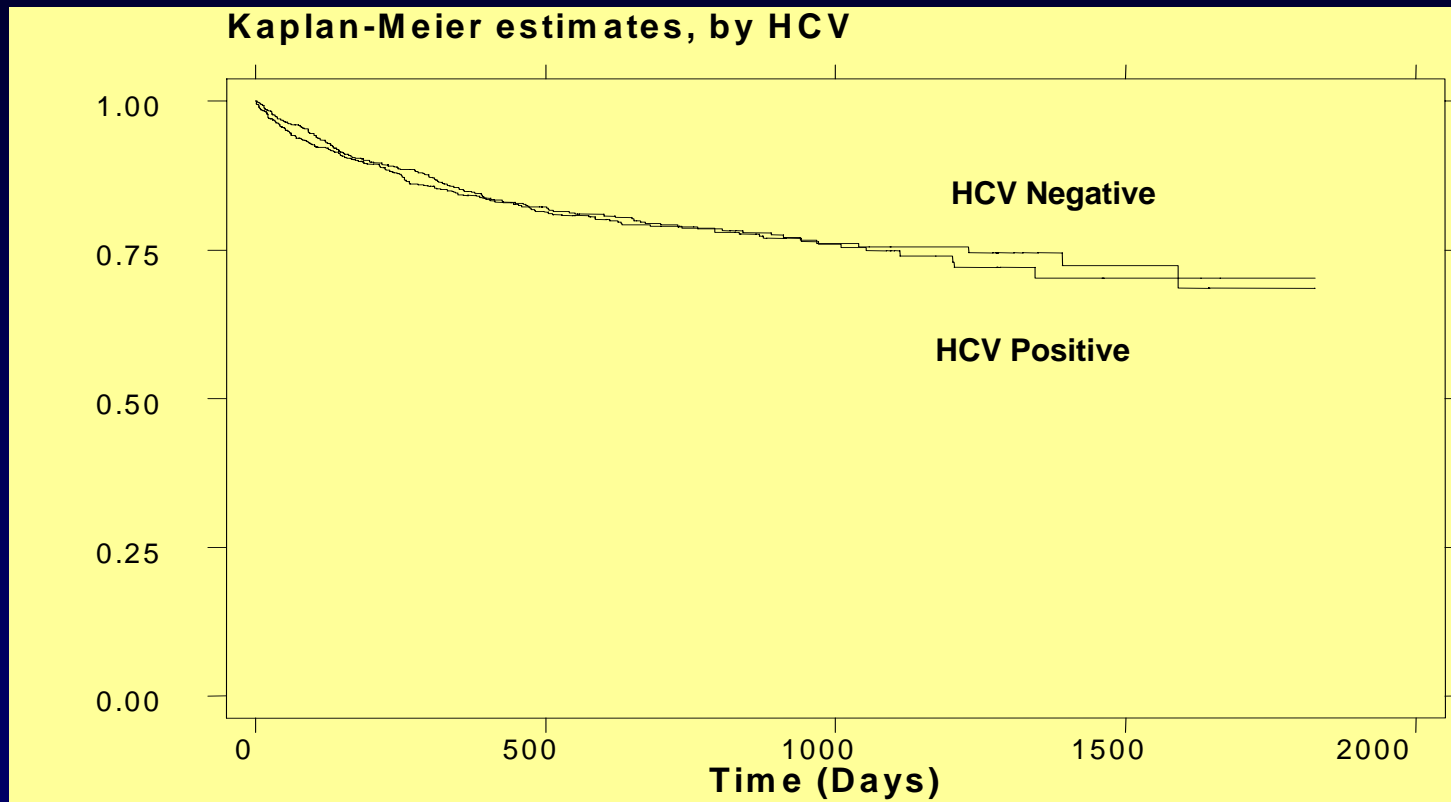


Greub Lancet 2000

ART (months)

Probability of Survival Without an Opportunistic Infection

1,742 pts at risk → 328 events



Liver Disease and HIV Infection

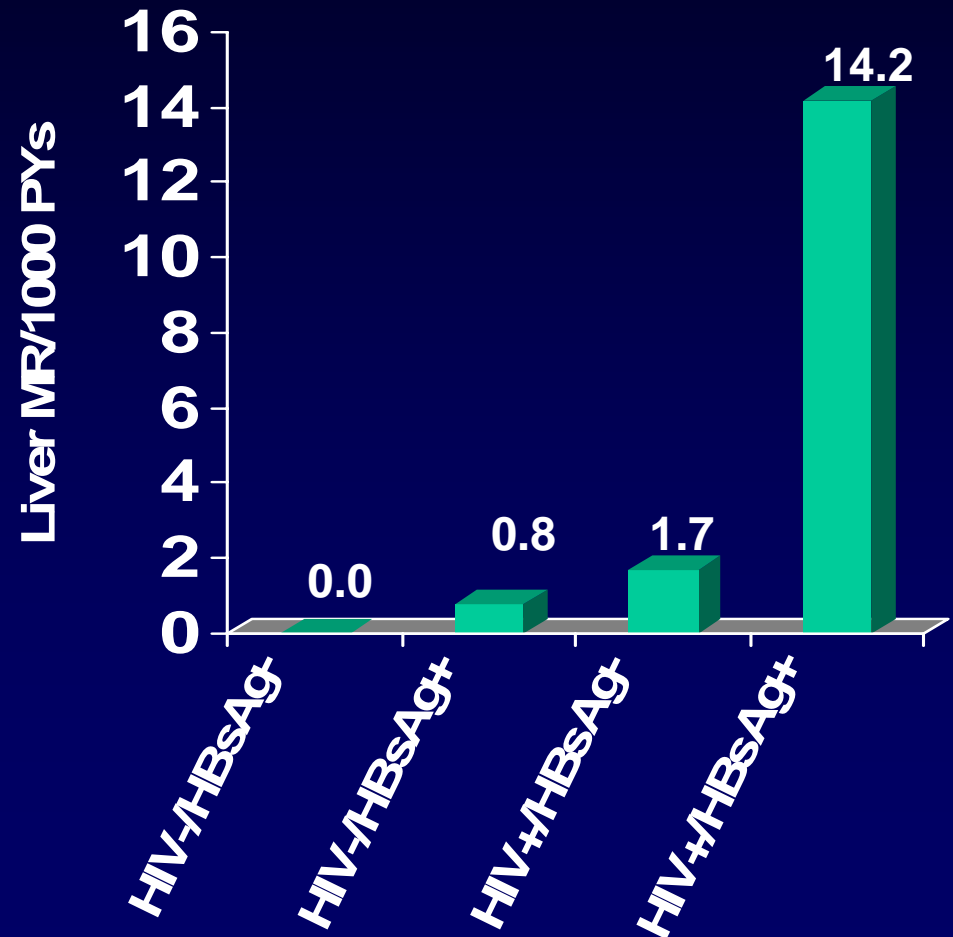
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Liver Disease and HIV Infection

- Spectrum of liver disease
- Hepatitis C
- Hepatitis B
 - Prevalence of chronic hepatitis B
8-10% in MACS and EuroSida Cohorts

Increased Liver Mortality in HIV-HBV Coinfected Men

- 5293 men (326 HBsAg+ baseline) followed to 3/00
- Overall liver MR 1.1/1000 PYs
- RR of liver death 18.7 in coinfectd vs. only HBsAg+



Thio et al, *The Lancet*, 2002

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Important Areas for Future Research

- **Pathogenesis**
- **Fibrosis progression rate**
- **Treatment outcomes and duration**
- **Liver transplantation**
- **Treatment access**